

Appl. No. 10/811,184  
Amdt. dated October 20, 2005  
Reply to Office action of July 20, 2005

Remarks

Please reconsider the application in view of the above amendments and the following remarks. Applicants thank the Examiner for carefully considering this application.

**Disposition of Claims**

Claims 1-9 are pending in this application. Claim 1, is an independent claim. The remaining claims depend, directly or indirectly, from Claim 1. Applicant has amended claims 1 and 6. Applicant has canceled claim 5.

**Rejection of claims under 35 U.S.C. § 102(a)**

Claims 1 – 4 are rejected under 35 U.S.C. 102(a) as being anticipated by the prior art as depicted in Figures 1 and 2. Applicant respectfully traverse the examiner's assertion.

Figures 1 and 2 illustrate a linear gate valve and a globe valve respectively. In these valves, the plug 11 extends perpendicularly into the flowline to obstruct the flow of fluids through the valve and flowline. The movement is for the piston to extend into and out of the flowline to regulate fluid flow. As illustrated in Figure 5, the plug in Applicant's invention is positioned in the 46 is positioned in the flowline and moves in a direction parallel with the flow of the flow of fluid through the flowline. The Figures 1 and 2 are valves and therefore do contain basic elements of the valve as does Applicant's invention. However, contrary to the examiner's statement that all elements are disclosed in the cited reference, a valve plug positioned in the flowline that has movement in a direction parallel to the movement of flow in the flow is not described in the Figures 1 and 2, so the rejection is unsupported by the art and should be withdrawn. Further, the Figures 1 and 2 do not describe an activation mechanism that comprises a rack gear attached to the plug, a pinion arm that engages the rack gear, and a shaft connected to the pinion arm to facilitate rotation of the pinion arm. Therefore, contrary to the examiner's assertion that all elements are disclosed the rack gear attached to the plug, a pinion arm that engages the rack gear, and a shaft connected to the pinion arm to facilitate rotation of the pinion arm are not, so the rejection is unsupported by the art and should be withdrawn.

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Claims 1 – 9 are rejected under 35 U.S.C. 102(b) are being anticipated by McIntosh (U.S. Patent 6,471,184). The Applicant respectfully traverses this assertion. McIntosh describes a globe valve system for controlling the flow of fluid in a pipe comprises a pipe receiving body having within a fluid passage, a valve seat and a globe valve plug movable between an open position allowing fluid flow through the passage and seat a closed position blocking the fluid flow as actuator have the valve plug between the open and closed positions and a spring assists the valve plug in moving from the open to the closed position. As shown in Figure 2 of McIntosh, this valve has a plug that moves in a direction that is perpendicular to the flowline. McIntosh diverts fluid flow in right angles through the seating pattern of the valve. Further, the McIntosh valve requires some form of closure mechanism to assemble the internal components. Applicant's present invention facilitates easier assembly and does not require the costly closure member. The rack and pinion gearing of Applicant's present invention is located in the valve plug member and is internal to the valve body and not external as in the McIntosh valve. In addition, McIntosh has a reciprocating movement of the plug. Applicant's invention comprises a rotary motion to move the plug. Contrary to the examiner's statement that all elements are disclosed in the cited reference, a valve plug positioned in the flowline that has movement in a direction parallel to the movement of flow in the flow is not described in McIntosh. Therefore, the rejection is unsupported by the art (McIntosh) and should be withdrawn.

Claims 1 – 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Rasmusson (U.S. Patent 5,346,173). Rasmusson describes an actuator for turning a shaft to a limited degree, e.g. the shaft of a butterfly valve or the like, the actuator comprising a housing having a cylindrical chamber, inlets and outlets for a pressure fluid to the cylindrical chamber, a piston in the cylindrical chamber, which can be displaced in the cylindrical chamber by means of a pressure fluid and is provided with a rack with a toothed segment cooperating with a gear ring segment, fixedly mounted on said shaft, which extends right through the cylindrical chamber and through the wall of the housing. The characteristic feature of the invention is that the toothed segment is disposed at the

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bottom of a groove in the rack, that said gear ring segment has a breadth in the axial direction, which corresponds to the breadth of said groove, and that said gear ring segment is provided in the groove to mesh with the toothed segment, the shaft in this way being fixed in the axial direction in the housing.

Rasmusson describes an actuator in connection with a butterfly valve. This invention relates to valve structures having the conventional plug positioned perpendicularly to the flowline. Rasmusson does not describe a valve as described in Applicant's present invention. Contrary to the examiner's statement that all elements are disclosed in the cited reference, a valve plug positioned in the flowline that has movement in a direction parallel to the movement of flow in the flow is not described in Rasmusson. Therefore, the rejection is unsupported by the art (Rasmusson) and should be withdrawn.

Applicant believes this reply to be fully responsive to all outstanding issues and place this application in condition for allowance. If this belief is incorrect, or other issues arise, do not hesitate to contact the undersigned at the below listed telephone number. Applicant submits that no addition fee is due. Please direct any questions or comments concerning this response to the below listed attorney of record.

Respectfully Submitted,



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